

Summitwave TX

User Manual

Multi-Channel Auracast™ Transmitter



UM-TX-EN • Rev. A • 2026-07

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1 Overview and safe operation

The TX accepts audio from analogue or Dante-based audio systems and transmits it as Auracast streams to compatible receiving devices.

Analog

Source

Processes the two balanced XLR/TRS mic/line inputs as 2 × mono, mono sum or 1 × stereo (L/R).

Network Dante

Source

Receives audio channels from an existing Dante network.

Demo

Test

Generates test material for function and coverage checks without an external audio source.

- Mount the TX securely and provide sufficient air circulation.
- Use suitable, undamaged network and audio cables.
- Operate the TX only at an ambient temperature between –10 °C and +50 °C.
- Record the hostname, network settings, stream names and passwords for later operation.
- After every change, verify transmission with a compatible receiver.

2 Technical data

The following specifications correspond to the Summitwave TX product datasheet DS-TX-EN, Rev. A (2026-07). Typical values can vary under real-world operating conditions.

RF / AURACAST

Radio standard	Bluetooth LE Audio (Core 6.0)
Auracast mode	Broadcast transmitter · up to 6 simultaneous streams
Frequency range	2400–2482 MHz
Codec / sample rate / bit depth	LC3 · 16 / 24 / 32 / 48 kHz · 16 bit
Transmit power	max. +10 dBm
Encryption	AES-CCM · access code per stream
Typical range	100 m
Typical end-to-end latency	40 ms

AUDIO

Analog inputs	2 × balanced XLR/TRS · mic/line
Audio modes	2 × mono · mono sum · 1 × stereo (L/R)
Nominal line level	+4 dBu
SNR / THD+N	≥ 105 dB · ≤ 0.05% (line at 0 dBu)
Internal processing	48 kHz · 24 bit
Frequency response	20 Hz–20 kHz (±1 dB at 48 kHz)
Dante	6 channels · 100 Mbit/s · additional latency ≤ 4 ms

NETWORK / POWER

Ethernet port 1	LAN configuration and monitoring
Ethernet port 2	LAN configuration + Dante + PoE (IEEE 802.3af)
IP addressing	DHCP · static IP · link-local
Management	Password-protected web interface over HTTP/HTTPS
Power	PoE (IEEE 802.3af) or USB-C 5 V; USB-C can also provide backup power
Recommended power supply	USB-C 15 W (5 V / 3 A)
Power consumption	7 W max. · 3 W nominal

MECHANICAL / ENVIRONMENT

Dimensions / weight	134 × 134 × 50 mm (W × H × D) · 300 g
Enclosure / colour	PETG · white or black
Mounting	Wall / ceiling · 1/4" female thread · mounting plate · cable ties
Operating temperature	–10 °C to +50 °C
Storage temperature	–40 °C to +60 °C
Compliance	CE (RED) · EN 62368-1 · EN 55032 · EN 55035 · RoHS · REACH · WEEE

Range and latency are typical values

Achievable RF coverage and end-to-end latency depend on the receiver, stream configuration, obstacles, local RF conditions and installation. Test the complete intended coverage area on site.

3 Open the web interface

Configuration is carried out in a current web browser connected to the same network as the TX.

- 1 **Connect the device**
Use the **Config** port (port 1) for LAN configuration and monitoring, or the **PoE + AoIP + Config** port (port 2) when Dante and/or PoE are required. The **Config** port does not support PoE; a TX connected only there needs a USB-C power supply.
- 2 **Start the device**
Power the TX through PoE on the **PoE + AoIP + Config** port (IEEE 802.3af) or over USB-C with a power supply of at least 15 W (5 V / 3 A). Both supplies may be connected at the same time: the TX then keeps running if one of them fails. Wait approximately one minute for start-up to finish.
- 3 **Open a browser**
Start a current browser such as Chrome, Firefox or Edge.
- 4 **Open the configuration address**
Enter the device-specific `.local` address in the address bar and press Enter.
- 5 **Confirm the certificate message**
Open the advanced section in the browser warning and continue to the local device address. The browser reports `NET::ERR_CERT_AUTHORITY_INVALID` because the Summitwave CA is not preinstalled. The *Quick Start Guide* describes how to install the CA certificate permanently.
- 6 **Sign in**
Sign in on the login page. For a device in factory condition, the default password stated in the existing documentation is `beacon`.

Device-specific address

The exact address, for example `swtx1xxx.local`, is printed on the label on the rear of the device.

Change the default password

Change the default password under System Control immediately after the first sign-in. Use an individual password of sufficient length.

4 Select the audio mode

In the Audio Mode field, select the source that matches your installation.

Demo

Testing

For coverage tests, acceptance testing and a general system function check.

Analog

XLR/TRS mic/line

For audio signals connected to the two balanced combo inputs.

Network Dante

Audio network

For integrating the TX into an existing Dante audio network.

Before changing modes

Stop an active transmission before changing the audio mode or the basic stream configuration.

5 Demo mode

In Demo mode you can configure and transmit an internal test signal without connecting an external audio source.

5.1 Basic control

PARAMETER	
Audio Mode	Switches between Demo, Analog and Network Dante.
Start Demo / Stop Demo	Starts or stops the test transmission.
Status indicator	Shows the current mode and state. Red indicates a stopped transmission and blue indicates an active transmission.
Audio level monitor	Displays the output audio levels while the stream is running.

5.2 Stream configuration

Parameter	Description	Values
Demo Stream Type	Sets the channel count and sample rate of the test stream.	1 × 48 kHz · 1 × 24 kHz · 1 × 16 kHz · 2 × 48 kHz · 2 × 24 kHz · 3 × 16 kHz · 4 × 24 kHz · 6 × 16 kHz
Demo Content	Selects the transmitted test material.	Program material · 1 kHz test tone
Stream Password	Optionally protects the stream from unauthorised access. Leave the field empty for a public broadcast.	

5.3 Advanced transmission parameters

Parameter	Description	Values
Assistive listening	Identifies the stream as assistive listening content for compatible receiving devices.	
Immediate rendering	Requests playback with the shortest possible delay at the receiver.	
Delay (ms)	Defines an additional playback delay in milliseconds.	
QoS	Prioritises robustness or low latency.	Robust · Fast
TX Power (R1/R2)	Sets the transmit power of the respective radio module. The maximum transmit power is +10 dBm according to the product datasheet.	max. +10 dBm

6 Analog mode (XLR)

In Analog mode, the TX processes the two balanced XLR/TRS mic/line inputs as 2 × mono, mono sum or 1 × stereo.

Two independent signals

Mono

Analog 1 and Analog 2 are used as separate audio channels.

One summed mono signal

Mono sum

Analog 1 and Analog 2 are combined into one mono source.

One stereo signal

Stereo

Analog 1 carries the left channel and Analog 2 carries the right channel.

6.1 Control and audio levels

Parameter	Description	Values
Start Auracast / Stop Auracast	Starts or stops the Auracast transmission.	
Status indicator	Shows the mode and current transmission state.	
Link audio channel gain	Links the gain controls for channel 1 and channel 2.	
Ch 1 / Ch 2 Input Gain	Adjusts the input gain of the corresponding analogue channel.	-12 dB to +18 dB
Audio level monitor	Displays the audio levels while transmission is active.	

6.2 Configure Radio 1

Radio 1 is the primary transmitter and is enabled by default.

Parameter	Description	Values
Stereo Mode	Combines Analog 1 as the left channel and Analog 2 as the right channel in one stereo stream.	
Stream Quality	Sets the audio quality and sample rate.	High (48 kHz) · Good (32 kHz) · Medium (24 kHz) · Fair (16 kHz)
Stream Password	Optionally protects Radio 1 with a password. Leave the field empty for public streams.	

6.3 Radio 1 transmission parameters

Parameter	Description	Values
Assistive listening (R1)	Identifies the stream as assistive listening content.	
Immediate rendering (R1)	Requests playback with the shortest possible delay.	
Delay (ms, R1)	Defines an additional delay.	
QoS (R1)	Selects high robustness or low latency.	Robust · Fast

TX Power (R1)	Sets the transmit power of Radio 1. The maximum transmit power is +10 dBm according to the product datasheet.	max. +10 dBm
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6.4 Metadata and signal source

This information helps users identify the correct stream on their receiving device.

Parameter	Description	Values
Channel Name	A clear stream name that is visible on the receiving device.	
Language (ISO 639-3)	Three-letter language code for the content.	deu · eng
Program Info	A short description of the transmitted programme.	
Input Device	Assigns the physical source.	ch1 · ch2 · ch1+ch2 (Stereo)

Clear stream names

Use short, unambiguous names such as “Main Hall English” or “Stage Audio”. Avoid internal channel numbers without context.

6.5 Configure Radio 2

Enable Radio 2 when a second independent Auracast stream is required in parallel, for example for another language. The corresponding Radio 2 settings then become available.

7 Network Dante mode

In Dante mode, the TX receives audio from a Dante network and assigns it to one or more Auracast streams.

Configuration per radio	Channels	Sample rate
High sample rate	1	48 kHz
Medium channel count	2	24 kHz
Maximum channel count	3	16 kHz

Stereo operation

When both radios are combined into one stereo stream, the total available channel count is halved.

7.1 Basic control

PARAMETER

Audio Mode	Selects Network Dante as the active audio source.
Start Auracast / Stop Auracast	Starts or stops the transmission.
Status indicator	Shows the current mode and transmission state.
Audio level monitor	Displays the output levels while the stream is running.

7.2 Configure Radio 1

Parameter	Description	Values
Stereo Mode	Enables processing of a stereo signal.	
Stream Configuration	Sets the channel count and sample rate.	1 × 48 kHz · 2 × 24 kHz · 3 × 16 kHz
Stream Quality	Selects the required audio quality. Higher settings use more transmission resources.	High (48 kHz) · Good (32 kHz) · Medium (24 kHz) · Fair (16 kHz)

7.3 Advanced transmission parameters

Parameter	Description	Values
Assistive listening (R1)	Identifies the stream as assistive listening content.	
Immediate rendering (R1)	Requests playback with the shortest possible delay.	
Delay (ms, R1)	Defines an additional playback delay.	
QoS (R1)	Prioritises robustness or latency.	Robust · Fast
TX Power (R1)	Sets the transmit power of Radio 1. The maximum transmit power is +10 dBm according to the product datasheet.	max. +10 dBm

7.4 Stream settings

Depending on the configuration, one to three stream sections are available per radio.

Parameter	Description	Values
Channel Name	The stream name displayed on the receiving device.	

Language (ISO 639-3)	The language of the programme content.	deu · eng
Program Info	A short description of the transmitted content.	
Stream Password	Optional access protection. Leave the field empty for public streams.	
Input Device	Selects the Dante input channel.	dante_asrc_ch1 to dante_asrc_ch6

8 System Control

System Control brings together device status, network settings, security and maintenance functions.

8.1 Device status and temperatures

PARAMETER

Status LED	Blue LED on while transmitting keeps the blue LED illuminated during an active audio transmission.
System temperatures	Shows current CPU and enclosure temperatures. Refresh updates the values.

Distinguish operation from storage

The approved operating temperature is -10°C to $+50^{\circ}\text{C}$. The -40°C to $+60^{\circ}\text{C}$ range applies to storage only and must not be treated as an operating range.

8.2 Network settings

PARAMETER

Hostname	The individual device name on the network, for example <code>swtx1005</code> .
Port 1 (Config)	Provides LAN configuration and monitoring.
Port 2 (PoE + AoIP + Config)	Provides LAN configuration and Dante, and can power the TX through IEEE 802.3af PoE.
DHCP	Obtains the IP configuration automatically from a DHCP server.
Static IP	Uses a manually defined IP configuration.

Maintain access

Record the new IP address before changing from DHCP to Static IP. Incorrect settings may prevent access to the web interface.

8.3 Security and certificates

PARAMETER

CA Certificate	Download CA Certificate downloads the local security certificate for installation on an administered computer.
Change password	Changes the web-interface password. The current password and two matching entries of the new password are required.

Install the CA certificate

To open the device address without a browser warning, install the Summitwave CA certificate. The *Quick Start Guide* describes the procedure for Chrome and Edge; in administered networks the IT department usually distributes the certificate centrally.

8.4 Maintenance, updates and restart

PARAMETER

Software Version	Shows the installed firmware. Check for updates searches for updates when an internet connection is available.
Reboot	Reboot now restarts the entire TX and briefly interrupts audio transmission.

9 Troubleshooting

Check the power supply, network, source and transmission state before resetting settings or restarting the device.

Problem	Check	Next step
Web interface cannot be reached	Check the LAN connection, <code>.local</code> address, IP configuration and that both devices are on the same network.	Determine an alternative IP address or contact the network administrator.
No stream is visible	Check the transmission state, radio activation, stream name and transmit power.	Start Demo mode and test with a second receiver.
Stream has no audio	Check Audio Mode, Input Device, input gain and the Audio level monitor.	Test the source directly or verify Dante routing.
Audio is unstable	Check QoS, transmit power, distance, obstacles and local RF conditions.	Select Robust and carry out a coverage test.
Dante does not respond	Check Dante routing and network status.	Restart the TX if required.

Prepare information for support

Record the device name, serial number, firmware version, audio mode, network configuration and a precise description of the problem. This information speeds up analysis.